Can I find the difference between a pair of numbers?

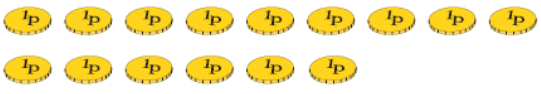
Teaching guidance

Key vocabulary

more, less, how many more to make…?, how many more is … than …?, how many fewer is … than …?, difference, difference between, subtract, place value, multiple of ten, number fact, change

Models and images, resources and equipment

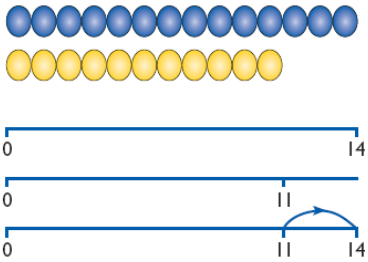
Practical experience of finding the difference between two sets of objects, for example two towers of cubes, two rows of money



Which line has **most** money?

How much **more**?

Link finding the difference practically to finding the difference on a number line

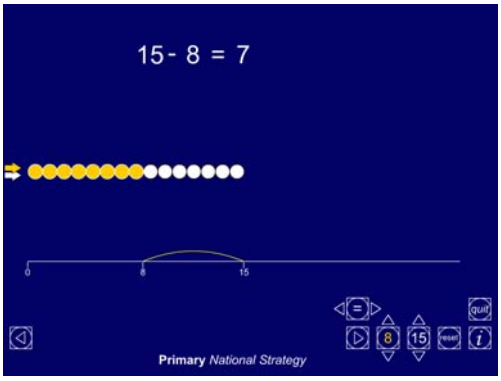


The difference between 11 and 14 is 3.

$14 - 11 = 3$

$11 + \square = 14$

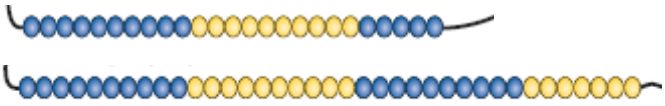
Difference ITP



Use the Difference ITP to animate the link between finding the difference between two sets of objects and finding the difference between two numbers using a number line.

Teaching tips

- Children need to experience subtraction as both 'take away' and 'difference'. While children will often interpret 14 - 11 = 3 as '14 take away 11 equals 3' they also need to understand that it can read as 'the difference between 11 and 14 is 3'.
- Finding the difference involves the comparison of two numbers or quantities. It therefore uses the language of 'more' and 'less.' When extending the vocabulary of EAL pupils, make it explicit when a subject-specific word, such as 'difference', carries a different meaning to that in everyday language.
- Provide children with practical experiences of finding the difference between numbers of objects. For example, ask children to build two towers of multilink, one with 14 cubes and one with 12 cubes, and place them side by side (it may be helpful to have the first ten in each tower in one colour and then the remaining cubes in another colour to help children to see how many there are without counting). Agree that one tower is taller and establish that it is two cubes taller. Now repeat the process, but this time place the multilink side by side horizontally.
- Bead strings can be used to bridge the gap between finding the difference using practical apparatus and finding the difference with the support of a number line. You may want to start by using two bead strings for direct comparison, for example to find the difference between 25 and 37.



Children can then go on to find a difference using one bead string, for example to find the difference between 37 and 47.

- Use the Difference ITP to model the link between finding the difference using two sets of objects and finding the difference between two numbers using a number line.
- Pose questions in contexts that promote finding the difference and use the language of comparison, for example:
    - There are 50 pages in my book. If I have read 39 pages, how many more pages have I got left to read?
    - The classroom is 15 metres long. The library is 12 metres long. What is the difference between the lengths of the classroom and the library?
    - My mum is 28 years old and my dad is 32 years old. How much older is my dad?
- When children have gained understanding and confidence in finding the difference between two numbers, help them see that they can use number facts and mental calculation strategies rather than counting on in ones to find a difference, for example: I have 47. How many more do I need to make 50? What number fact could I use to help? (7 + 3 = 10)